

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259
FAX (303) 757-9445



March 8, 2001

Ms. Georgianna Contiguglia
State Historic Preservation Officer
Colorado History Museum
1300 Broadway
Denver, CO 80203

SUBJECT: Project BRO C360-001, Smith Arroyo Bridge Replacement, Otero County

Dear Ms. Contiguglia:

This letter and the attached pages constitute the request for concurrence on our Determination of Eligibility and Effects for the CDOT project referenced above, located west of Manzanola in Otero County. The project involves replacing structure OT-10.9.31.5-26 over Smith Arroyo. This bridge is a steel, pin-connected Pratt through truss, constructed and designed by the Pueblo Bridge Company in 1907.

In the Colorado Bridge Survey 2000, Fraser Design found the Smith Arroyo Bridge (5OT794) eligible to the National Register under Criteria A and C. The bridge is a common type chosen by counties and cities in the late 19th and early 20th centuries and hundreds, if not thousands, of Pratt through trusses were built on Colorado's county roads, as they were economical, easy to build and ideal for crossings requiring medium span bridge configurations. However, attrition has been especially severe for this bridge type, and only a handful of pinned Parker through trusses remain extant. Fraser Design noted that "truss bridges built before 1910 are sufficiently rare that all documentable examples that retain structural integrity are considered significant." The Smith Arroyo Bridge retains structural integrity, and is therefore significant under Criterion C as one of the last remaining examples of a once common type. It also was found eligible under Criterion A as a locally important crossing of Timpas Creek, and as an example of a county bridge designed and built by the Pueblo Bridge Company.

Other pinned Pratt through trusses in the project vicinity include the Prowers Bridge (BT34-34.5-31-46) in Bent County, the Purgatoire Canyon Bridge (LA143-70-26-103) in Las Animas County, as well as the Timpas Bridge (OT-N-15.5-12-59), a rigid-connected Pratt through truss south of Manzanola, over County Road N in Otero County.

The Smith Arroyo Bridge is only 15' 8" from rail to rail, and, with a Sufficiency Rating of only 18.3, is structurally deficient. Numerous vehicle/bridge collisions have damaged the superstructure members, as seen in the attached photograph. Otero County has requested the replacement of the structure, not only to build a wider structure, but to increase the load capacity to accommodate trucks traveling to and from farms in the vicinity. In addition, the existing rail does not meet current standards for vehicle collisions, and because there have been accidents on the bridge, this safety concern must also be addressed.

Several alternatives were considered for this project. These include: do nothing; rehabilitate the existing bridge, build a companion structure next to the old bridge; and replace the existing bridge.

Do Nothing: This alternative would not correct the structural deficiencies, the safety concerns, and the need of the county to construct a wider bridge at this location. For these reasons, this option was not considered further.

Rehabilitation: To increase the load capacity of the bridge, virtually all of the super structural members, which have deteriorated beyond the point of reasonable repair, would have to be replaced. This is considered impractical and costly, and it would not correct the need for a wider bridge at this location. The bridge cannot be widened because it is a truss. For these reasons, this option was not considered further.

Build a Companion Structure: This alternative would involve building a companion structure next to the existing bridge and limiting traffic to one way on each bridge. This alternative would still necessitate increasing the load capacity of the existing bridge due to the substantial deterioration of the superstructure, which would involve replacing all of the members. In addition, a companion structure would have to be built on a greater skew, requiring additional roadway improvements. Engineers also considered building a new, wider bridge, and leaving the old bridge in place for pedestrian or bicycle traffic. However, due to the lack of pedestrian traffic in the area, it is not necessary to leave the bridge in place for this reason.

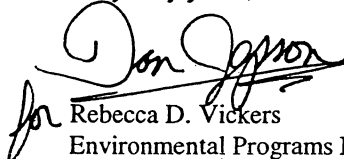
Total Replacement: This alternative involves building a replacement bridge on the same alignment as the existing bridge, according to all present-day design standards, with at least 28 feet horizontal clearance to accommodate the greater number of trucks that will be using the bridge to and from farms in the vicinity.

CDOT finds this action will result in an adverse effect to the Smith Arroyo Bridge. As a means of mitigation, we propose Level II Documentation as established by OAHP in Form 1595. In addition, CDOT will market the bridge for relocation with preference to a recipient willing to accept a preservation easement. The Memorandum of Agreement drafted for this project will be similar to the Eagle River Bridge MOA, signed by the SHPO and FHWA in 1999 (Project BR 006A-028, 5EA1590). Engineers will develop a cost estimate for repairing the superstructure, disassembly, and reassembly for potential reuse in another location.

We hereby request your concurrence with these Determinations of Eligibility and Effect. Your response is necessary for Federal Highway Administration compliance with Section 106 of the National Historic Preservation Act (as amended) and with the Advisory Council on Historic Preservation regulations (36 CFR 800).

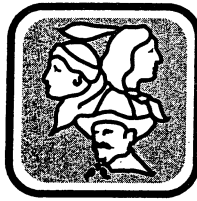
If you have any comments or require additional information, please contact CDOT Staff Historian Dianna Litvak at (303) 512-4258.

Very truly yours,


for Rebecca D. Vickers
Environmental Programs Manager

Enclosures

cc: Judy DeHaven, Region II Environmental
Joe Garcia, Region II Engineering
Darryl Schulz, Otero County Public Works Director
File/CF/RF



COLORADO HISTORICAL SOCIETY

The Colorado History Museum 1300 Broadway Denver, Colorado 80203-2137

2 May 2001

Rebecca D. Vickers
Environmental Program Manager
Colorado Department of Transportation
Project Development Branch
4201 East Arkansas Ave.
Denver, CO 80222

RE: Smith Arroyo Bridge Replacement, Project BRO C360-001, Otero County

Dear Ms. Vickers:

Thank you for your recent correspondence dated 9 March 2001, concerning the proposed replacement of structure OT-10.9.31.5-26 over Smith Arroyo. Our office has reviewed the submitted materials and plans. We concur with your assessment that this structure is individually eligible for listing on the National Register.

In a meeting between Diana Litvak of CDOT and members of our office, which took place on 12 April 2001, we discussed the need for a Memorandum of Agreement (MOA) to mitigate the adverse effect that the bridge removal would cause. We feel that this bridge is a candidate for the Adopt-A-Bridge program (AAB), which has been used to successfully re-use old truss bridges under similar circumstances.

Therefore, we request that your office draft a Memorandum of Agreement (MOA) to this effect. Please refer to the MOA prepared for the Eagle River Bridge Replacement project on 17 June 1999 (attached) as a model for the Smith Arroyo project.

If you have any questions, please feel free to contact Joseph Saldibar, Architectural Services Coordinator, at (303) 866-3741. We look forward to hearing from you.

Sincerely,

mark woff
for Georgianna Contiguglia
State Historic Preservation Officer, and
President, Colorado Historical Society

OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION

303-866-3392 * Fax 303-866-2711 * E-mail: oahp@chs.state.co.us * Internet: www.coloradohistory-oahp.org

DOCUMENTATION FOR FINDING OF ADVERSE EFFECT

**COLORADO DEPARTMENT OF TRANSPORTATION PROJECT BRO C360-001
Smith Arroyo Bridge Replacement, Otero County**

**COLORADO DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL PROGRAM
4201 EAST ARKANSAS
DENVER, COLORADO 80222**

May 2001

DOCUMENTATION FOR FINDING OF ADVERSE EFFECT BRO C360-001, Smith Arroyo Bridge Replacement, Otero County

This documentation is prepared in accordance with the Advisory Council Regulations, Section 800.11(e), which stipulates the inclusion of the following items:

1. A description of the undertaking, specifying the Federal involvement, and its area of potential effects, including photographs, maps, and drawings, as necessary.

The project involves replacing structure OT-10.9.31.5-26 over Smith Arroyo. This bridge is a steel, pin-connected Pratt through truss, constructed and designed for Otero County by the Pueblo Bridge Company in 1907.

The Smith Arroyo Bridge is only 15' 8" from rail to rail, and, with a Sufficiency Rating of only 18.3, is structurally deficient. Numerous vehicle/bridge collisions have damaged the superstructure members (Attachment A). Otero County has requested the replacement of the structure, to build a wider structure and increase the load capacity to accommodate large farm trucks that are currently unable to use the existing bridge. In addition, the existing rail does not meet current standards for vehicle collisions, and because there have been accidents on the bridge, this safety concern must also be addressed.

2. A description of the steps taken to identify historic properties.

The inventory form was prepared and historical research conducted as part of the 2000 Colorado Bridge Survey, completed for the Colorado Department of Transportation (CDOT) by Fraser Design. The purpose of the survey was to identify National Register-eligible bridges on the state, county, and city road systems of Colorado that were constructed before 1959. The survey resulted in a Multiple Property Documentation Form that evaluated the historical and technological significance of bridges. Fraser Design photographed the bridge in May 1999, and prepared an extensive inventory form with the construction history and significance statement for the bridge (Attachment B).

3. A description of the affected historic properties, including information on the characteristics that qualify them for the National Register.

The Smith Arroyo Bridge (5OT794) is eligible to the National Register under Criteria A and C. The bridge type is a common type chosen by counties and cities in the late 19th century and early 20th century, and hundreds, if not thousands, of Pratt through trusses were built on Colorado's county roads, as they were economical and easy to build, and ideal for crossings requiring medium span bridge configurations. However, attrition has been especially severe for this bridge type, and only a handful of pinned Parker through trusses are still extant. Fraser Design noted, "truss bridges built before 1910 are sufficiently rare that all documented examples that retain structural integrity are considered significant." The Smith Arroyo Bridge retains structural integrity, and is therefore significant under Criterion C as one of the last remaining examples of a once common type. It also was found eligible under Criterion A, as a locally important crossing of Timpas Creek, and as an

example of a county bridge designed and built by the Pueblo Bridge Company.

Other pinned Pratt through trusses in the project vicinity, also NRHP eligible, include the Prowers Bridge (BT34-34.5-31-46) in Bent County, the Purgatoire Canyon Bridge (LA143-70-26-103) in Las Animas County, as well as the Timpas Bridge (OT-N-15.5-12-59), a rigid-connected Pratt through truss south of Manzanola, over County Road N in Otero County.

4. A description of the undertaking's effects on historic properties.

The Smith Arroyo Bridge will be replaced with a wider bridge designed to increase safety and load capacity at this location.

5. An explanation of why the criteria of adverse effect were found applicable or inapplicable, including any conditions or future actions to avoid, minimize, or mitigate adverse effects.

In accordance with Section 800.5 of the Advisory Council Regulations, CDOT has applied the criteria of adverse effect, determining the project will have an adverse effect because it will result in the replacement of the Smith Arroyo Bridge.

Several alternatives were considered for this project. These include: do nothing; rehabilitate the existing bridge, build a companion structure next to the old bridge; and build a new structure at a different location.

Do Nothing: This alternative would not correct the structural deficiencies, the safety concerns, and the need of the county to construct a wider bridge at this location. For these reasons, this option was not considered further.

Rehabilitation: To increase the load capacity of the bridge, virtually all of the super structural members, deteriorated beyond the point of reasonable repair, would have to be replaced. This is considered impractical and costly, and it would not correct the need for a wider bridge at this location. The bridge cannot be widened because it is a truss. For these reasons, this option was not considered further.

Build a Companion Structure: This alternative would involve building a companion structure next to the existing bridge and limiting traffic to one way on each bridge. This alternative would still necessitate increasing the load capacity of the existing bridge due to the substantial deterioration of the superstructure, which would involve replacing all of the members. In addition, a companion structure would have to be built on a greater skew, requiring additional roadway improvements. Engineers also considered building a new, wider bridge, and leaving the old bridge in place for pedestrian or bicycle traffic. However, due to the lack of pedestrian traffic in the area, it is not necessary to leave the bridge in place for this reason.

Build a new structure at a different location: This alternative would involve purchasing right-of-way to build a new structure at a different alignment. Otero County officials were not supportive of this option and due to lack of pedestrian traffic, it is not necessary to leave the bridge in place for this

reason.

After reviewing all of the alternatives, CDOT has determined that this bridge must be replaced, which will result in an adverse effect to this historic structure. As a means of mitigation, we propose Level II Documentation as established by OAHP in Form 1595. In addition, CDOT will market the bridge for relocation with preference to a recipient willing to accept a preservation easement. The Memorandum of Agreement drafted for this project will be similar to the Eagle River Bridge MOA, signed by the SHPO and FHWA in 1999 (Project BR 006A-028, 5EA1590). Engineers will develop a cost estimate for repairing the superstructure, disassembly, and reassembly for potential reuse in another location.

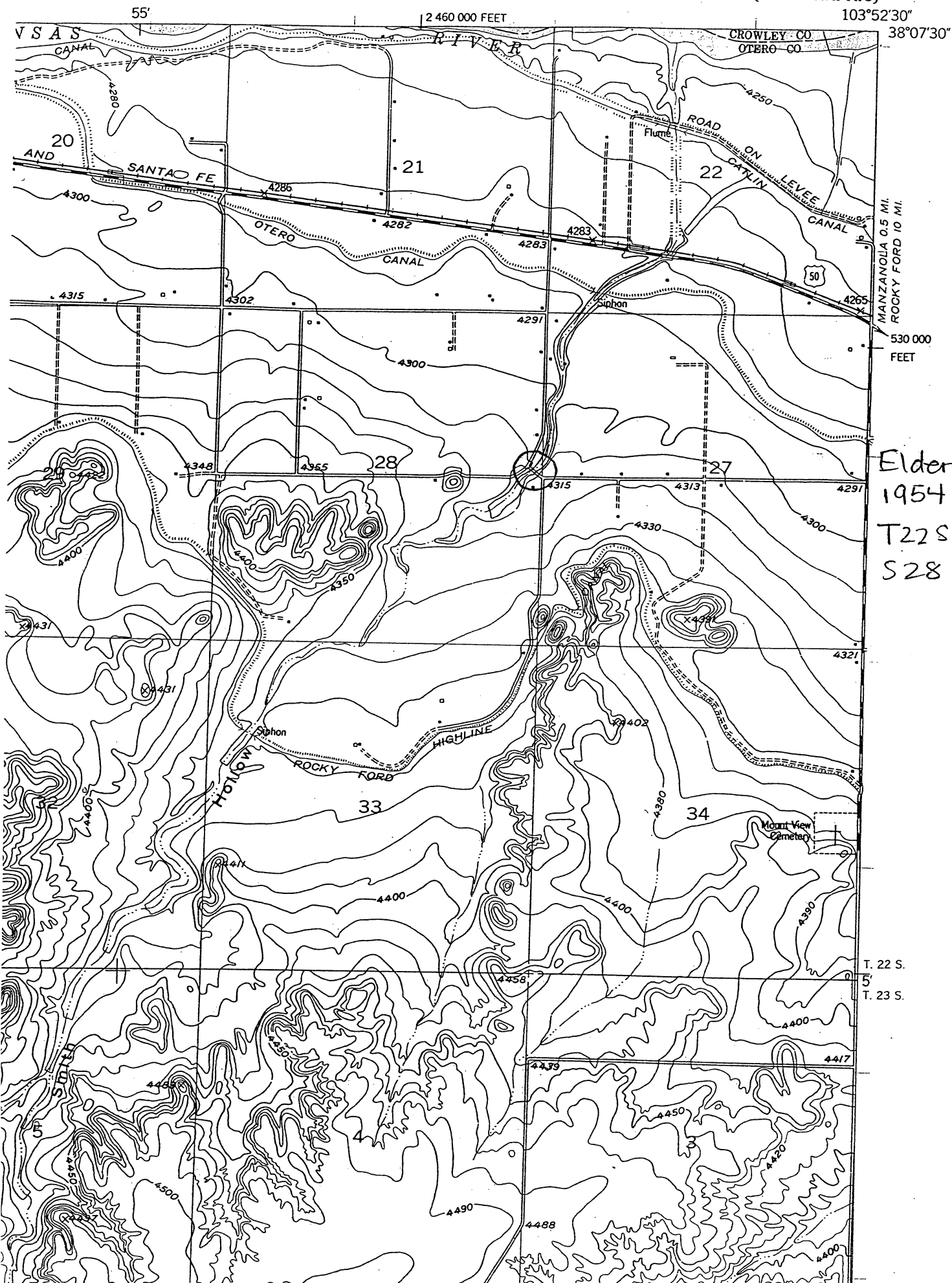
6. Copies or summaries of any views provided by consulting parties and the public.

The SHPO has concurred with the lead agency's determinations of effects, and their written views are attached. (See Attachment D: Views of the SHPO).

ATTACHMENT A
PROJECT LOCATION MAP
AND
PHOTOGRAPHS

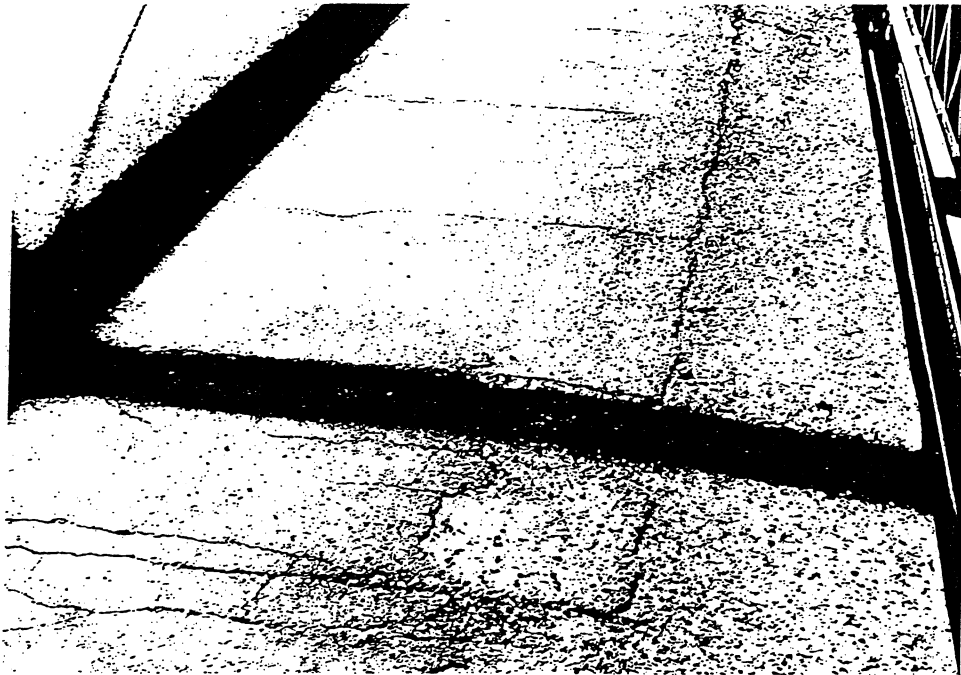
COLORADO
7.5 MINUTE SERIES (TOPOGRAPHIC)

(ORDWA)

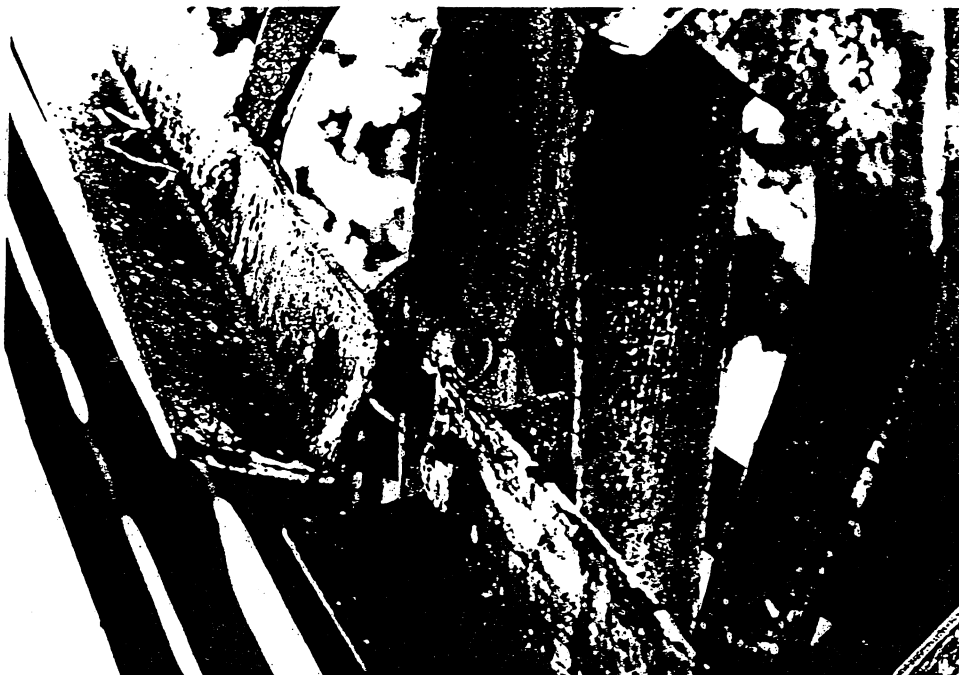


Elder Quad
1954
T22S, R58
S28

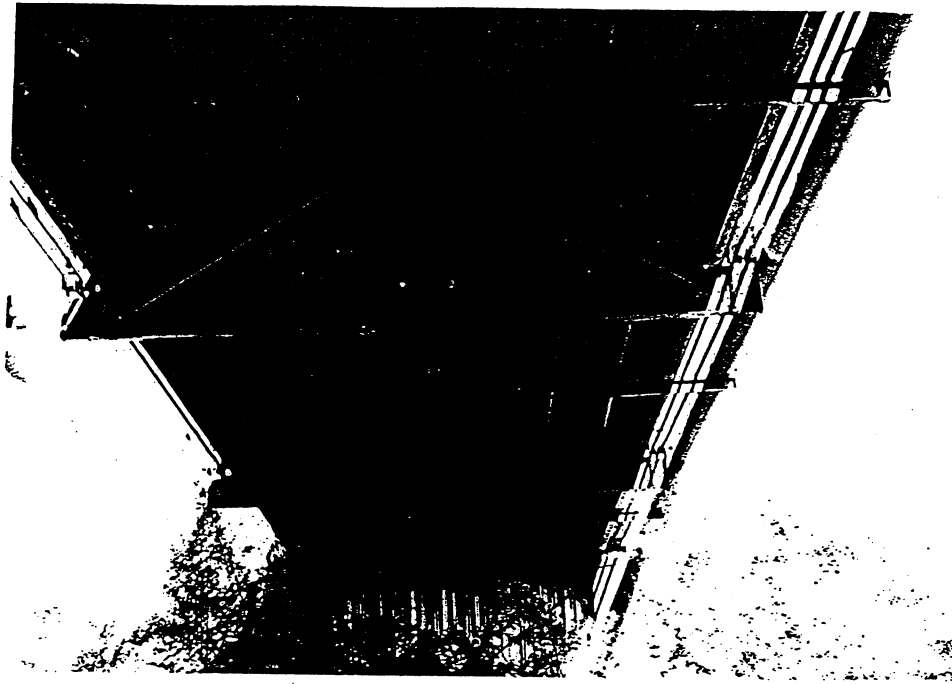
T. 22 S.
5'
T. 23 S.



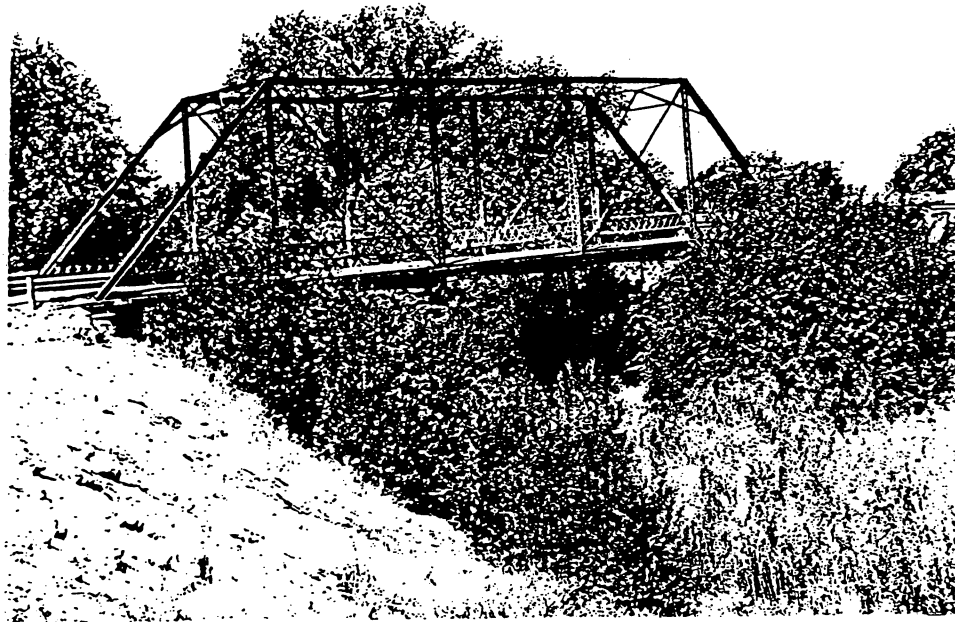
View of Transverse Cracks in Asphalt Wearing
Surface on Deck



View of Crack on Both Sides of Rivet Head



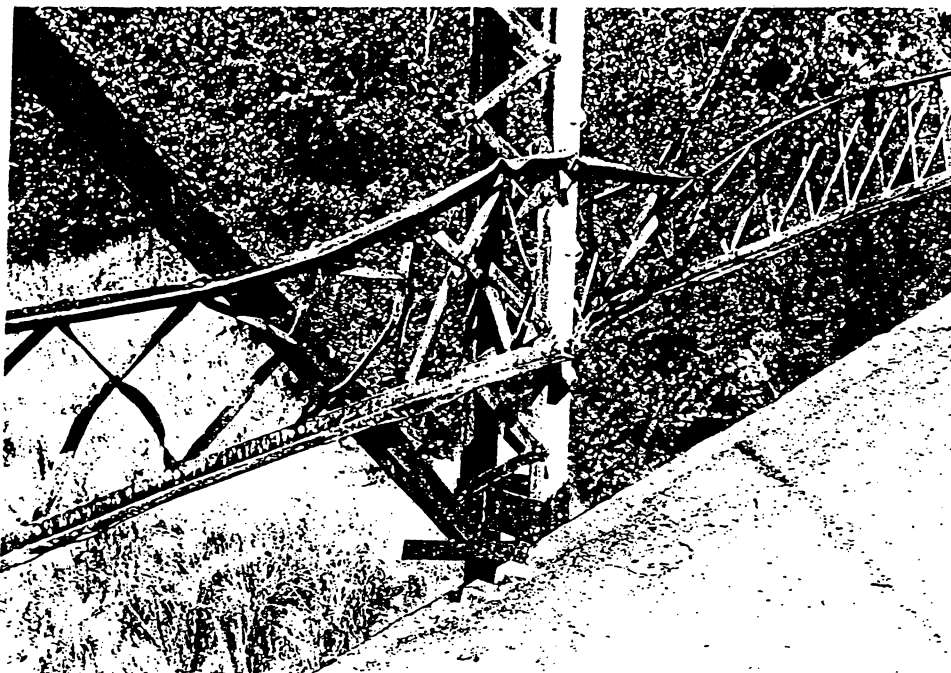
General View of Underside of Bridge



View of Bridge Side Elevation



View Down Centerline Bridge Roadway



View of Damaged Bridge Rail



View of Dirt at Truss Bearing Area



View of Sloughing into Approach Roadway at
Southwest Corner of Bridge



View Showing Backing Block Not
Nailed to Approach Rail Post



View Looking Upstream

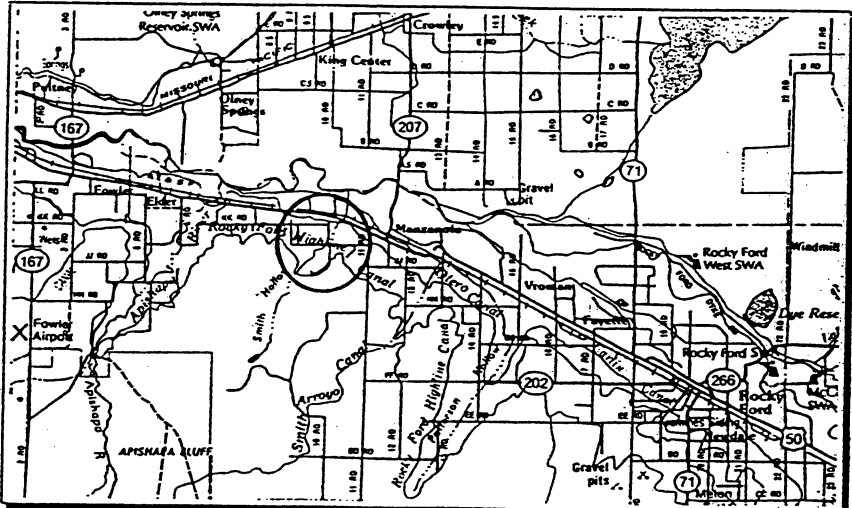


View Looking Downstream

ATTACHMENT B
INVENTORY FORM

HISTORIC BRIDGE INVENTORY

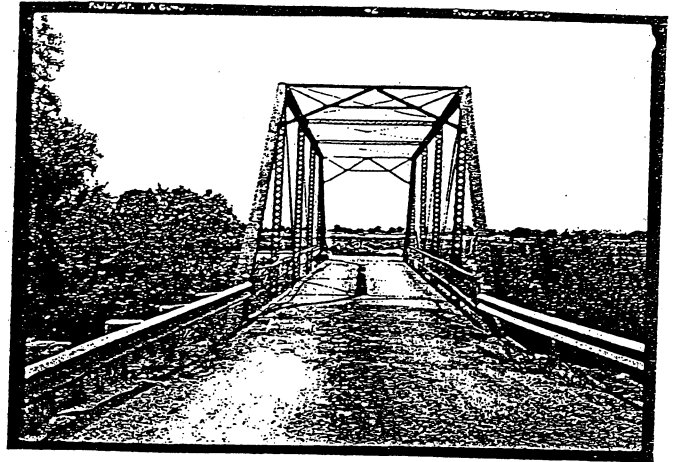
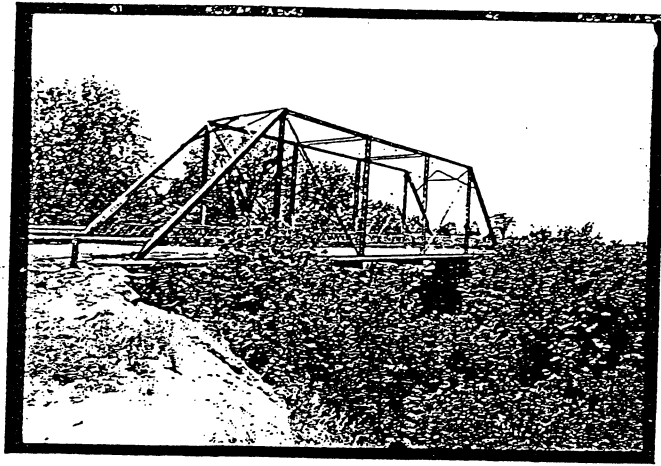
Site No. 50T794

county	city	inv. no.	Office use only
Otero	Manzanola vicinity	OTE056	eligible for National Register <input type="checkbox"/> yes <input type="checkbox"/> no date _____ initials _____ Criteria <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D contributes to a potential National Register district <input type="checkbox"/> yes <input type="checkbox"/> no district name _____ eligible for State Register <input type="checkbox"/> yes <input type="checkbox"/> no date _____ initials _____ Criteria <input type="checkbox"/> a <input type="checkbox"/> b <input type="checkbox"/> c <input type="checkbox"/> d <input type="checkbox"/> e areas of significance _____ period of significance _____ needs data <input type="checkbox"/> date _____ initials _____
structure name	CDOT No.		
Smith Hollow Bridge	OT-10-9-31.5-26		
highway location	milepost		
highway carried	COUNTY ROAD 10	31.50	
feature intersected	SMITH ARROYO		
directions	1.6 MI W OF MANZANOLA		
owner	district		consultant's evaluation
Otero County	2		National Register eligibility <input type="checkbox"/> eligible
P.O. Box 511			Criterion A <input type="checkbox"/> 1 Criterion C <input type="checkbox"/> S
La Junta, Colorado 81050			Numbers given for Criterion A refer to historic contexts given in the overview report. Letters for both Criteria refer to "S" significant and "N" non-significant.
dimensions			structure location
main span number 1	structure length 104.00		township 22S range 58W section NE1/4 S 28
appr. span number 0	structure width 16.10		UTM zone 13 easting 59698 northing 4217900
main span length 100.00	roadway width 15.80		USGS quad Elder
structural information			historical information
superstructure steel, pin-connected Pratt through truss			erected 1907
substructure concrete-filled steel cylinder piers with timber backwalls			designer Pueblo Bridge Company
floor/decking corrugated steel deck with asphalt overlay			fabricator Carnegie Steel Company
other features upper chord: 2 channels w/ cover and batten plates; lower chord: 2 rectangular eyebars; vertical: 2 channels w/ lacing; diagonal: 2 rectangular eyebars; counter: 1 square eyebar w/ turnbuckle; floor beam and stringer: I-beam; steel lattice guardrails			contractor Pueblo Bridge Company
			info source Otero County records
location map			historic/present use
			historic use roadway bridge
			present use roadway bridge
			condition
			excellent <input type="checkbox"/> good <input type="checkbox"/> fair <input checked="" type="checkbox"/> deter. <input type="checkbox"/>
			location
			original <input checked="" type="checkbox"/> moved <input type="checkbox"/>
			alterations
			type deck replaced with corrugated steel
			date(s) 1968

taken from Delorme Colorado Atlas and Gazetteer, 1995.

SMITH HOLLOW BRIDGE

Site No. 50T794



PHOTOGRAPHS

photo no.: 99.5.6 99.5.69

photographer: Clayton Fraser

CONSTRUCTION HISTORY

As part of an extensive bridge building program for 1906-1907, the Otero County Board of Commissioners during the fall of 1906 solicited competitive bids for four steel bridges—a 40-foot leg bridge over Crooked Arroyo, an 85-foot truss with 32 feet of approaches over Timpas Creek, a five-span truss over Horse Creek, and a 100-foot truss over Smith Arroyo about 1 1/2 miles west of Manzanola. In December the county awarded a contract to the Pueblo Bridge Company to fabricate and erect all four structures, with a bid of \$4000 for the Smith Hollow Bridge. The bridge company worked through the winter and the following spring on the bridges, finally completing them the following July.

The medium-span bridge that Pueblo built for the Smith Hollow crossing is comprised of a pin-connected Pratt through truss divided into five equal-length panels. With a nominal roadway width of 16 feet and a span length of 100 feet, the truss is comprised of steel members produced by the Carnegie rolling mills of Pennsylvania. The inclined end posts and upper chords of the Smith Hollow Bridge consist of two back-to-back channels, covered by a continuous iron plate on top and joined by batten plates beneath. The verticals are comprised of two back-to-back channels with lacing. The lower chords and diagonals are made up of two rectangular bars with punched eyes; the counters consist of square eyebars with turnbuckles. Interior struts are comprised of four angles with lacing, and the portals are two-angle A-frames. Field-bolted to the verticals beneath the lower chord pins, the floor beams consist of steel I-beams. Over these are laid the stringers and timber-plank deck. The truss is supported on its four corners by built-up bearing shoes, which are anchor-bolted to concrete-filled steel cylinder piers.

Since its completion in 1907, the Smith Hollow Bridge has carried vehicular traffic, without serious alteration. The most noteworthy changes are the replacement of the original timber deck with corrugated steel decking and the replacement of the original wooden abutment backwalls with corrugated steel.

HISTORICAL BACKGROUND

see historical overview

SMITH HOLLOW BRIDGE

Site No. 50T794

SIGNIFICANCE STATEMENT

In the late 19th and early 20th centuries, bridge construction was largely the responsibility of the individual counties and cities. Thousands of wagon bridges were built in this manner, and many remain in place today. As a locally important crossing of Tim-pas Creek and one of the few county-built trusses remaining intact, the Smith Hollow Bridge is one of the more historically significant examples of early county bridge construction.

The bridge is technologically important for its structural type—the pin-connected Pratt truss. Marketed extensively by such regional bridge firms as the Pueblo Bridge Company, the Pratt through truss was the bridge of choice for counties building medium-span structures on their roads. Its standardized fabrication, efficiency of materials and relative ease of erection made it an economical structural type for counties facing considerable bridge construction programs with limited funds. As a result, hundreds, perhaps thousands, of these trusses were built on Colorado's roads in the late 19th and early 20th centuries. With its 100-foot span and 1907 construction date, the Smith Hollow Bridge lacks distinction among the Pratt trusses that were built in Colorado. What makes this bridge important is the fact that of the many pinned Pratt through trusses that once stood in the state, fewer than ten remain today. The Smith Hollow Bridge is thus noteworthy as one of the last remaining examples in Colorado of what was once a mainstay structural type.

SIGNIFICANCE

TECHNOLOGICAL SIGNIFICANCE

- ☐ represents the work of a master
☐ possesses high artistic values
☒ represents a type, period or method of construction

HISTORICAL SIGNIFICANCE

- ☐ associated with significant persons
☒ associated with significant events or patterns
☐ contributes to historical district

NATIONAL REGISTER CRITERIA

- ☒ Criterion A
☐ Criterion B
☒ Criterion C

NATIONAL REGISTER ELIGIBILITY

- individually eligible ☒ yes ☐ no
contributes to district ☐ yes ☒ no

AREA OF SIGNIFICANCE Transportation; Engineering

PERIOD OF SIGNIFICANCE 1907-1958

THEME(S): Transportation: Highways

REFERENCES

Colorado Department of Transportation, Structure Inventory and Appraisal: Structure No. OT-10-9-31.5-26. Located at CDOT, Denver, Colorado.

Otero County Commissioners' Proceedings: 5:348 (7 December 1906); 5:414 (13 July 1907). Located at Otero County Courthouse, La Junta, Colorado.

Rick Klein, Otero County Engineer. Oral interview with Clayton Fraser, 22 August 1983.

Builder's plate on bridge (removed): "1907 Built by Pueblo Bridge Co Pueblo, Colo."

Field inspection by Clayton Fraser, May 1999.

INVENTORIED BY

Clayton B. Fraser, Principal

FRASERdesign
420 South County Road 23E
Loveland, Colorado 80537
31 March 2000

ATTACHMENT C

REQUEST FOR CONCURRENCE OF EFFECTS

F

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259
FAX (303) 757-9445



March 8, 2001

Ms. Georgianna Contiguglia
State Historic Preservation Officer
Colorado History Museum
1300 Broadway
Denver, CO 80203

SUBJECT: Project BRO C360-001, Smith Arroyo Bridge Replacement, Otero County

Dear Ms. Contiguglia:

This letter and the attached pages constitute the request for concurrence on our Determination of Eligibility and Effects for the CDOT project referenced above, located west of Manzanola in Otero County. The project involves replacing structure OT-10.9.31.5-26 over Smith Arroyo. This bridge is a steel, pin-connected Pratt through truss, constructed and designed by the Pueblo Bridge Company in 1907.

In the Colorado Bridge Survey 2000, Fraser Design found the Smith Arroyo Bridge (SOT794) eligible to the National Register under Criteria A and C. The bridge is a common type chosen by counties and cities in the late 19th and early 20th centuries and hundreds, if not thousands, of Pratt through trusses were built on Colorado's county roads, as they were economical, easy to build and ideal for crossings requiring medium span bridge configurations. However, attrition has been especially severe for this bridge type, and only a handful of pinned Parker through trusses remain extant. Fraser Design noted that "truss bridges built before 1910 are sufficiently rare that all documentable examples that retain structural integrity are considered significant." The Smith Arroyo Bridge retains structural integrity, and is therefore significant under Criterion C as one of the last remaining examples of a once common type. It also was found eligible under Criterion A as a locally important crossing of Timpas Creek, and as an example of a county bridge designed and built by the Pueblo Bridge Company.

Other pinned Pratt through trusses in the project vicinity include the Prowers Bridge (BT34-34.5-31-46) in Bent County, the Purgatoire Canyon Bridge (LA143-70-26-103) in Las Animas County, as well as the Timpas Bridge (OT-N-15.5-12-59), a rigid-connected Pratt through truss south of Manzanola, over County Road N in Otero County.

The Smith Arroyo Bridge is only 15' 8" from rail to rail, and, with a Sufficiency Rating of only 18.3, is structurally deficient. Numerous vehicle/bridge collisions have damaged the superstructure members, as seen in the attached photograph. Otero County has requested the replacement of the structure, not only to build a wider structure, but to increase the load capacity to accommodate trucks traveling to and from farms in the vicinity. In addition, the existing rail does not meet current standards for vehicle collisions, and because there have been accidents on the bridge, this safety concern must also be addressed.

Several alternatives were considered for this project. These include: do nothing; rehabilitate the existing bridge, build a companion structure next to the old bridge; and replace the existing bridge.

Do Nothing: This alternative would not correct the structural deficiencies, the safety concerns, and the need of the county to construct a wider bridge at this location. For these reasons, this option was not considered further.

Rehabilitation: To increase the load capacity of the bridge, virtually all of the super structural members, which have deteriorated beyond the point of reasonable repair, would have to be replaced. This is considered impractical and costly, and it would not correct the need for a wider bridge at this location. The bridge cannot be widened because it is a truss. For these reasons, this option was not considered further.

Build a Companion Structure: This alternative would involve building a companion structure next to the existing bridge and limiting traffic to one way on each bridge. This alternative would still necessitate increasing the load capacity of the existing bridge due to the substantial deterioration of the superstructure, which would involve replacing all of the members. In addition, a companion structure would have to be built on a greater skew, requiring additional roadway improvements. Engineers also considered building a new, wider bridge, and leaving the old bridge in place for pedestrian or bicycle traffic. However, due to the lack of pedestrian traffic in the area, it is not necessary to leave the bridge in place for this reason.

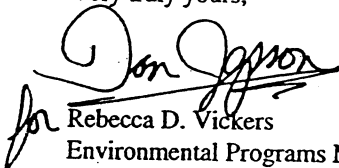
Total Replacement: This alternative involves building a replacement bridge on the same alignment as the existing bridge, according to all present-day design standards, with at least 28 feet horizontal clearance to accommodate the greater number of trucks that will be using the bridge to and from farms in the vicinity.

CDOT finds this action will result in an adverse effect to the Smith Arroyo Bridge. As a means of mitigation, we propose Level II Documentation as established by OAHP in Form 1595. In addition, CDOT will market the bridge for relocation with preference to a recipient willing to accept a preservation easement. The Memorandum of Agreement drafted for this project will be similar to the Eagle River Bridge MOA, signed by the SHPO and FHWA in 1999 (Project BR 006A-028, SEA1590). Engineers will develop a cost estimate for repairing the superstructure, disassembly, and reassembly for potential reuse in another location.

We hereby request your concurrence with these Determinations of Eligibility and Effect. Your response is necessary for Federal Highway Administration compliance with Section 106 of the National Historic Preservation Act (as amended) and with the Advisory Council on Historic Preservation regulations (36 CFR 800).

If you have any comments or require additional information, please contact CDOT Staff Historian Dianna Litvak at (303) 512-4258.

Very truly yours,

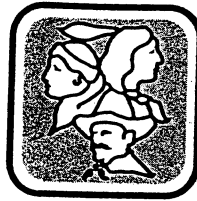


Rebecca D. Vickers
Environmental Programs Manager

Enclosures

cc: Judy DeHaven, Region II Environmental
Joe Garcia, Region II Engineering
Darryl Schulz, Otero County Public Works Director
File/CF/RF

ATTACHMENT D
VIEWS OF THE SHPO



COLORADO
HISTORICAL
SOCIETY

The Colorado History Museum 1300 Broadway Denver, Colorado 80203-2137

2 May 2001

Rebecca D. Vickers
Environmental Program Manager
Colorado Department of Transportation
Project Development Branch
4201 East Arkansas Ave.
Denver, CO 80222

RE: Smith Arroyo Bridge Replacement, Project BRO C360-001, Otero County

Dear Ms. Vickers:

Thank you for your recent correspondence dated 9 March 2001, concerning the proposed replacement of structure OT-10.9.31.5-26 over Smith Arroyo. Our office has reviewed the submitted materials and plans. We concur with your assessment that this structure is individually eligible for listing on the National Register.

In a meeting between Diana Litvak of CDOT and members of our office, which took place on 12 April 2001, we discussed the need for a Memorandum of Agreement (MOA) to mitigate the adverse effect that the bridge removal would cause. We feel that this bridge is a candidate for the Adopt-A-Bridge program (AAB), which has been used to successfully re-use old truss bridges under similar circumstances.

Therefore, we request that your office draft a Memorandum of Agreement (MOA) to this effect. Please refer to the MOA prepared for the Eagle River Bridge Replacement project on 17 June 1999 (attached) as a model for the Smith Arroyo project.

If you have any questions, please feel free to contact Joseph Saldibar, Architectural Services Coordinator, at (303) 866-3741. We look forward to hearing from you.

Sincerely,

for Georgianna Contiguglia
State Historic Preservation Officer, and
President, Colorado Historical Society

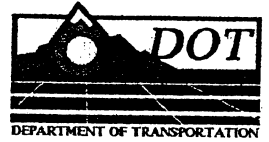
OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION

303-866-3392 * Fax 303-866-2711 * E-mail: oahp@chs.state.co.us * Internet: www.coloradohistory-oahp.org

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Office of Environmental Services
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9011



May 14, 2001

Mr. William C. Jones
Division Administrator
FHWA, Colorado Division
555 Zang Street, Room 250
Lakewood, Colorado 80228

SUBJECT: Colorado Department of Transportation Project BRO C360-001 (SA 12837),
Smith Arroyo Bridge Replacement, Otero County

Dear Mr. Jones:

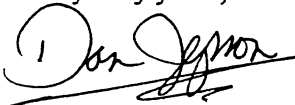
Pursuant to Section 800.6 (a) (1) of the revised Advisory Council on Historic Preservation Regulations, Agency Officials must notify the Council of adverse effect determinations by providing Documentation of Adverse Effect, the content of which is specified in Section 800.11 of the regulations. Such notification allows the Council to determine whether it will participate in the consultation between the agency and the SHPO. If the Council does not respond within 15 calendar days, the agency can assume that the Council will not be participating in the consultation process.

The project referenced above, Smith Arroyo Bridge Replacement, will adversely affect the Smith Arroyo Bridge (OT-10.9.31.5-26), a steel, pin-connected Pratt through truss, constructed and designed for Otero County by the Pueblo Bridge Company in 1907. Enclosed are two copies of the Documentation of Adverse Effect for this historic resource; one is for your files and the other is to be submitted to the Council. We have attached a draft transmittal letter for the Documentation of Adverse Effect to the Advisory Council for your consideration.

Please send a copy of all your correspondence with the Advisory Council to Acting Staff Historian Dianna Litvak for our files.

If you have questions or require additional information, please contact Ms. Litvak at (303)512-4258.

Very truly yours,


for Rebecca D. Vickers
Environmental Program Manager

Enclosures

cc: Colorado SHPO



U.S. Department
Of Transportation
**Federal Highway
Administration**

Colorado Federal Aid Division
555 Zang Street, Room 250
Lakewood, CO 80228-1040

May 15, 2001

File: HDA-CO

Mr. Don Klima
Advisory Council on Historic Preservation
12136 West Bayaud Ave.
Suite 330
Lakewood, CO 80228

Dear Mr. Klima:

Transmitted herewith is the Documentation of Finding of Adverse Effect for Colorado Department of Transportation (CDOT) Project BRO C360-001, Smith Arroyo Bridge Replacement, east of Manzanola in Otero County, Colorado.

The Federal Highway Administration (FHWA) and the Colorado State Historic Preservation Officer (SHPO) have agreed that the proposed undertaking will have an Adverse Effect on the Smith Arroyo Bridge, which was determined eligible for listing on the National Register of Historic Places by the SHPO on May 2, 2001.

FHWA is submitting this Documentation of Finding of Adverse Effect, pursuant to the Advisory Council Regulations, 36 CFR Part 800, Section 800.6 (a) (1). In accordance with the process set forth in the regulations, mitigation measures have been agreed upon with the SHPO and are outlined in the request for concurrence of effects (Attachment C of the Documentation).

If there are any questions regarding this project, please contact CDOT staff historian Dianna Litvak at (303) 512-4258.

Sincerely yours,

William C. Jones
Division Administrator

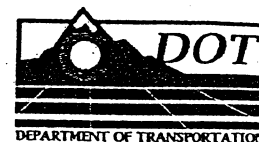
EVinson:jc
Enclosures

c: Mr. Thomas E. Norton, Executive Director, CDOT, Attn: Ms. Becky Vickers,
Environmental Program
Ms. Dianna Litvak, Environmental Program, CDOT
Mr. Bob Torres, Region 2 Transportation Director, CDOT, Attn: Mr. Richard Annand,
Region Planning and Environmental Manager

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Office of Environmental Services
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9011



July 16, 2001

Georgianna Contiguglia
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

RE: BRO C360-001 (SA12837) Smith Arroyo Bridge Replacement, Otero County, Colorado

Dear Ms. Contiguglia,

Enclosed for your signature are two copies of the original Memorandum of Agreement (MOA) for Project BRO C360-001 (SA12837) Smith Arroyo Bridge Replacement, Otero County, Colorado. This project will adversely affect the Smith Arroyo Bridge, which was determined to be eligible to the National Register of Historic Places in May 2001. The Smith Arroyo Bridge will be replaced with a wider bridge designed to increase safety and load capacity at this location.

The bridge will be recorded prior to construction so that there will be a permanent record of its present appearance and history. Recordation shall consist of Level II documentation as determined in consultation with SHPO, and established in OAHF form #1595, Historical Resource Documentation: Standards for Level I, II, and III Documentation. The bridge will also be advertised as part of the Adopt-A-Bridge program in newsletters for the Colorado Historical Society and the Colorado Department of Transportation as well as a newspaper published in the bridge locale.

Please sign and return both of these documents to Lisa Schoch, Office of Environmental Services, Colorado Department of Transportation, 4201 East Arkansas, Denver, CO 80222. As requested by your office, the document is modeled on the MOA used for the Eagle River Bridge Replacement project, and uses standard language agreed upon by CDOT and your office after the revision of the Section 106 Regulations.

This procedure is consistent with the process outlined in the Advisory Council on Historic Preservation's Regulations, 36 CFR Part 800. You will receive a copy of the original document when executed. If you have questions or need additional information, please contact Ms. Schoch at (303) 512-4258.

Very truly yours,



Rebecca D. Vickers
Environmental Program Manager

Enclosure

cc: Judy DeHaven, Region 2
John Simmer, Range Engineering
Darryl Schultz, Otero County
F/CF/RF

12837



U.S. Department
Of Transportation
**Federal Highway
Administration**

Colorado Federal Aid Division
555 Zang Street, Room 250
Lakewood, CO 80228-1040

August 14, 2001

Mr. Don Klima, Director
Office of Planning and Review
Advisory Council on Historic Preservation
12136 West Bayaud Avenue, Suite 330
Lakewood, CO 80228

Dear Mr. Klima:

Transmitted herewith is the Memorandum of Agreement (MOA) for Colorado Department of Transportation (CDOT) Project BRO C360-001 (SA12837) Smith Arroyo Bridge Replacement, in Otero County, Colorado.

The Federal Highway Administration (FHWA) and the Colorado State Historic Preservation Officer (SHPO) have agreed that the proposed undertaking will have an Adverse Effect on the Smith Arroyo Bridge. CDOT and Otero County signed this agreement as invited signatories.

In accordance with the process set forth in the Council regulations, Section 800.6(b)(1)(iv), mitigation measures and measures considered to avoid or minimize the undertaking's adverse effects have been agreed upon with the SHPO and are outlined in the MOA. There have been no substantive revisions or additions to the documentation provided the Council, nor additional views expressed by the public concerning this project.

If there are any questions, please contact CDOT staff historian Lisa Schoch at (303) 512-4258.

Sincerely yours,

William C. Jones
Division Administrator

Enclosure

cc: Mr. Thomas E. Norton, Executive Director, CDOT
(Attention: Ms. Becky Vickers, Environmental Programs)
Ms. Lisa Schoch, Environmental Programs, CDOT (with enclosure)
Mr. Bob Torres, Region 2 Transportation Director, CDOT (with enclosure)
(Attention: Mr. Dick Annand, Reg. 2 Planning & Env. Manager)
Mr. Christopher Horn, Operations/ROW Program Manager, FHWA (with enclosure)

NOTE! There were
two originals.

**MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION
AND THE COLORADO STATE HISTORIC PRESERVATION OFFICER
REGARDING PROJECT BRO C360-001 (SA12837)
SMITH ARROYO BRIDGE REPLACEMENT
OTERO COUNTY, COLORADO**

WHEREAS, the Federal Highway Administration (FHWA) has determined that Project BRO C360-001, Smith Arroyo Bridge Replacement (undertaking), located east of Manzanola in Otero County, Colorado, will have an adverse effect upon properties eligible for the National Register of Historic Places (NRHP) and has consulted with the Colorado State Historic Preservation Officer, (SHPO), pursuant to 36 CFR Part 800 regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C.470f); and

WHEREAS, the FHWA has consulted with the Colorado Department of Transportation (CDOT) regarding the effects of the undertaking on historic properties and has invited them to sign this MOA as an invited signatory; and

WHEREAS, Otero County, as the owner of the bridge, has been invited by FHWA to sign this MOA as an invited signatory; and

WHEREAS, in accordance with 36 CFR Section 800.6(a)(1), FHWA has notified the Advisory Council on Historic Preservation (Council) of its adverse effect determination with specified documentation and the Council has chosen not to participate in the consultation pursuant to 36 CFR Section 800.6(a)(1)(iii); and

WHEREAS, the historic property that will be affected by this Memorandum of Agreement is:

Smith Arroyo Bridge (5OT794). This bridge is eligible to the National Register under Criteria A and C as one of the few remaining Pratt through trusses built on Colorado's county roads. While this was once a common structural type, attrition has been severe, and only a handful of this type still exist in Colorado. It is also considered significant as a locally important crossing of Timpas Creek, and as an example of a county bridge designed and built by the Pueblo Bridge Company.

NOW, THEREFORE, the FHWA and the Colorado SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect this project will have to historic properties.

STIPULATIONS

The FHWA shall ensure that the following measures are carried out:

1. Mitigation

The Smith Arroyo Bridge will be recorded prior to the construction so that there will be a permanent record of its present appearance and history. Recordation shall consist of Level II documentation as determined in consultation with the SHPO, and established in OAHF form #1595, Historical Resource Documentation: Standards for Level I, II, III Documentation. All documentation must be accepted by the SHPO prior to the start of construction. Copies of the documentation will be provided to the SHPO and to a county archive.

2. Adopt-a-Bridge Marketing Plan

In consultation with the SHPO, the Smith Arroyo Bridge shall be marketed as follows:

- a. An information package will be prepared, containing structural data, photographs, location map, information on historic significance, estimated cost for relocation and requirements regarding relocation, rehabilitation, and maintenance. The package shall also include *The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (attached here as Exhibit A). Respondents expressing an interest in acquiring the bridge shall be required to submit a relocation and reuse plan and specifics regarding the new site location.
- b. A notice will be published in the CDOT newsletter, Colorado Historical Society newsletter, and SHPO web site advertising the availability of the Smith Arroyo Bridge. The article will appear once in a 30-day period. Prior contacts expressing an interest in the bridge shall also be notified.
- c. A schedule to review offers will be prepared, with offers reviewed for 15 days after the 30-day advertising period has expired. All offers shall be reviewed in consultation with the SHPO prior to acceptance.

3. Transfer of Property with Preservation Covenant

- a. The Smith Arroyo Bridge will be offered for relocation with preference to recipients who agree to abide by a Preservation Covenant, if an entity willing to accept the covenant (Beneficiary) can be found. The Preservation Covenant (attached here as Exhibit B and incorporated by reference) shall be signed by the grantee at the same time that the bridge bill of sale or transfer is executed. The Covenant will be recorded in the offices of Clerk and Recorder of Otero County.
- b. A grant to partially defray the costs of disassembly and relocation, equal to the estimated cost of demolition of the bridge, may be offered to any recipient who will abide by the Preservation Covenant.

4. Transfer of Property without a Preservation Covenant

If there is no acceptable offer that will conform to the requirements of the Preservation Covenant, the FHWA may, with the approval of the SHPO, permit transfer of all or part of the property without the Preservation Covenant. The property shall also be transferred without the Preservation Covenant if an organization willing to accept the covenant (Beneficiary) cannot be found.

5. Interim Maintenance Plan

Otero County shall abide by the attached Interim Maintenance Plan to ensure that the bridge is maintained in satisfactory condition prior to transfer to a new owner. Such Maintenance Plan is attached as Exhibit C and incorporated by reference.

6. SHPO Review and Comment

If a new owner can be found, the FHWA shall ensure that the SHPO is afforded 30 days to review and comment on the new site of the property. The FHWA shall take the SHPO's comments into account. Within 90 days following the move, the SHPO shall re-evaluate the property on its new site and make a recommendation to the FHWA as to its continued eligibility to the National Register.

7. Failure to Find New Owner

If no new owner can be found to relocate the bridge, it shall remain the property of Otero County and may be disposed of or demolished as the entity sees fit.

8. Duration

This agreement shall be null and void if its terms are not carried out within 5 (five) years from the date of its execution. Prior to such time, FHWA may consult with the other signatories to reconsider the terms of the agreement and amend in accordance with Stipulation 11 below.

9. Monitoring

The Signatories may monitor activities carried out pursuant to this Agreement. The FHWA will cooperate with the Signatories in carrying out their monitoring and review responsibilities.

10. Dispute Resolution

Should any party to this agreement object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FHWA shall consult with the objecting party(ies) to resolve the objection. If FHWA determines, within 30 days, that such objection(s) cannot be resolved, FHWA will:

- a. Forward all documentation relevant to the dispute to the Council in accordance with 36 CFR Section 800.2(b)(2). Upon receipt of adequate documentation, the Council shall review and advise FHWA on the resolution of the objection within 30 days. Any comment provided by the Council, and all comments from the parties to the MOA, will be taken into account by FHWA in reaching a final decision regarding the dispute.
- b. If the Council does not provide comments regarding the dispute within 30 days after receipt of adequate documentation, FHWA may render a decision regarding the dispute. In reaching its decision, FHWA will take into account all comments regarding the dispute from the parties to the MOA.
- c. FHWA's responsibilities to carry out all actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged. FHWA will notify all parties of its decision in writing before implementing that portion of the undertaking subject to dispute under this stipulation. FHWA's decision will be final.

11. Amendments and Noncompliance

If any signatory to this MOA, including any invited signatory, determines that its terms will not or cannot be carried out or that an amendment to its terms must be made, that party shall immediately consult with the other parties to develop an amendment to this MOA pursuant to 36 CFR 800.6(c)(7) and 800.6(c)(8). The amendment will be effective on the date a copy signed by all of the original signatories is filed with the Council. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate the agreement in accordance with Stipulation 13, below.

12. Suspension of Agreement

Any party to this Agreement may suspend it by written notice to the other consulting parties. If this occurs, the parties will consult further to determine whether the issues can be resolved and the Agreement re-implemented in an amended form.

13. Termination

If this MOA is not amended following the consultation set out in Stipulation 10 above, it may be terminated by any signatory or invited signatory. Within 30 days following termination, the FHWA shall notify the signatories if it will initiate consultation to execute an MOA with the signatories under 36 CFR 800.6(c)(1) or request the comments of the Council under 36 CFR 800.7(a) and proceed accordingly.

14. Reporting

Within ninety (90) days after carrying out the terms of this Agreement, FHWA shall provide a written report to all signatories to the Agreement on the actions taken to fulfill the terms of the Agreement.

Execution of this Memorandum of Agreement by FHWA, the Colorado SHPO, and CDOT, the submission of documentation and filing of this Memorandum of Agreement with the Council pursuant to 36 CFR Section 800.6(b)(1)(iv) prior to FHWA's approval of this undertaking, and implementation of its terms, evidence that FHWA has taken into account the effects on historic properties of the Smith Arroyo Bridge Replacement, Project No. BRO C360-001 (SA12837), and afforded the Council an opportunity to comment.

SIGNATORIES:

Federal Highway Administration

By: Edie Vernon, Jr. 8/13/01
William C. Jones, Division Administrator (Date)

Colorado State Historic Preservation Officer

By: Mark Wolfe 7/19/01
for Georgianna Contiguglia, State Historic Preservation Officer (Date)

INVITED SIGNATORIES:

Colorado Department Of Transportation

By: John Unbewust 7-12-01
John Unbewust, Chief Engineer (Date)

Otero County

By: Robert Hansen 7-02-01
(Date)

Smith Arroyo Bridge Available for Adoption

AO that
appeared in
CHS
paper &
Greensheets

The Colorado Department of Transportation is offering the 94-year old Smith Hollow/Arroyo Bridge to any person or organization interested in relocating it. The bridge is located 1.6 miles west of Manzanola on County Road 10 in Otero County. It is a single span, steel, pin-connected Pratt through truss. The bridge is 104 feet long, 16 feet wide, and has a vertical clearance of 20 feet. In May 2001 it was determined to be eligible for the National Register of Historic Places.

The Smith Arroyo Bridge is in fair condition and would be ideal for low-traffic vehicle or pedestrian stream crossing. There are some damaged truss members that should be repaired and all of the truss members should be cleaned. It is assumed that the bridge will require sandblasting and painting. Given the age of the bridge, its paint may contain lead and other objectionable constituents that require careful removal and containment. Interested parties are advised that according to existing federal and state environmental regulations it is acceptable to re-use the structure in its current condition. If the paint or coatings will be removed or disturbed in any manner by the disassembly and re-assembly of the bridge, the recipient must adhere to all local, state, and federal laws and regulations that address worker and environmental protection. The total relocation cost estimate for the bridge is \$138,518. This includes the estimated cost to contain and dispose of the paint during the dismantling process.

Preference will be given to plans that agree to maintain the bridge in accordance with the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (National Park Service, 1990). A grant totaling the cost of demolition may be available to a recipient willing to preserve the integrity of the bridge. Potential recipients must submit a written relocation plan detailing the proposed use and new location of the bridge as well as resources available to assure future maintenance. Potential recipients should also state their intent to follow all environmental regulations concerning the treatment of lead-based paint on the structural steel components. If you are interested in adopting the bridge and would like more information, please contact Lisa Schoch, Staff Historian, Environmental Programs, Colorado Department of Transportation, 4201 E. Arkansas Ave., Denver, CO 80222, (303) 512-4258 or email lisa.schoch@dot.state.co.us The deadline to request information is September 3, 2001.

REQUEST FOR TASK PROPOSAL AND COST ESTIMATE

*Proposal
for Level II
Doc. of
bridge*

PROJ. NO: BRO C360-001 (SA 12837) Smith Arroyo Bridge Replacement, Otero County, Colorado

Date: July 30, 2001

FROM: Lisa Schoch, CDOT Project Manager

SCOPE: Produce archival photographic recordation and written historical narrative for the Smith Arroyo Bridge near Manzanola in Otero County so that there will be a permanent record of its present appearance and history. Recordation shall consist of Level II documentation as determined in consultation with the State Historic Preservation Officer (SHPO) and established in OAHF Form #1595, Historical Resource Documentation: Standards for Level I, II, and III Documentation.

This scope of work will include the production of archival photographs to be taken with a perspective-corrected medium-format camera. Each negative will be inserted into a labeled archival sleeve, and each 5x7 print will be attached to a labeled archival mount card. An index will be produced for the photos to each structure. One negative and two prints will be produced for each view.

The historical narrative shall be at or near the level found in a National Register nomination. It shall include the history of the structure, including historical significance that can be derived from the structure's location, period of construction, and comparison with other structures of its type. The historical narrative shall not consist of more than 10 typed pages of double-spaced copy similar to the 12-point type found in this document. Four historical narrative documents will be submitted to CDOT on archival bond paper, including photocopies of the photographs for the two documents that don't have original photographs.

Price/Cost:

Commencement Date of Work: At the discretion of the vendor, subsequent to Notice to Proceed.

Completion Date of Work: No Later Than Monday, October 15, 2001

Project Location: The project area is 1.6 miles west of Manzanola on County Road 10 in Otero County. The bridges crosses the Smith Arroyo.

REQUEST FOR TASK PROPOSAL AND COST ESTIMATE

TASK ORDER # _____

Date: July 30, 2001

Project #/Name: BRO C360-001 (SA 12837) Smith Arroyo Bridge Replacement, Otero County, Colorado

Sub account/function/P or N/phase: 12837

Task Description and product:

Perform a reevaluation of the existing historical survey of the bridge in accordance with the Secretary of Interior's Standards for Archaeology and Historic Preservation and the guidelines for cultural resource surveys developed by the Office of Archaeology and Historic Preservation. Consultant will prepare a draft letter to the State Historic Preservation Officer (SHPO) describing the project and any changes to the previous clearance. Other products may include a cultural resources survey report and inventory forms, including photographs, if new sites are identified. If conditions on previously identified sites have changed, Site Reevaluation Inventory Forms will be prepared.

Due Date: The contractor will complete the Task Order by Monday, October 15, 2001

Attachments:

Project Location map

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Office of Environmental Services
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9011



August 3, 2001

Ted White
1225 17th St.
Denver, CO 80202

Dear Ted

Enclosed please find a package regarding the adoption of the historic Smith Arroyo Bridge, located at milepost 31.50 on County Road 10, 1.6 miles west of Manzanola in Otero County, Colorado.

This package contains the following information:

- 1) Elevation and Detail for Smith Arroyo Bridge
- 2) Photo showing condition of the bridge (I should be sending this out on Monday—sorry for the delay)
- 3) Historic Bridge Inventory form, including a location map of the bridge and information on its historic significance.
- 4) Cost estimates for relocation
- 5) Requirements for relocation, rehabilitation, and maintenance including the Secretary of the Interior's *Standards for Rehabilitation*, and the Preservation Covenant for conveyance of the bridge to an owner willing to assure its historic preservation.
- 6) Location Map
- 7) Relocation factors
- 8) Colorado Contractors Who May Be Capable of Bridge Relocation Work

To help defray the cost of relocation, a grant equal to the cost of demolition (estimated at \$30,000) may be available to the bridge recipient willing to comply with the preservation covenant. The recipient(s) will receive this grant after the bridge has been relocated and our office has received written notification along with photographs documenting the bridge in its new setting.

You asked about funding to assist with the relocation costs. As I suggested, you might want to investigate local funding opportunities, such as an historical society or museum that might benefit from the relocation of the bridge. In addition, Transportation Enhancement Funds are available; however, only federal, tribal, state, county, or municipal governmental agencies are eligible to apply for these funds. Interested private, non-profit, and civic organizations must partner with a government agency in order to be eligible for this type of funding. I have included a copy of the Transportation Enhancement Guidelines for your review.

If you wish to submit a proposal, please include the following information:

- 1) Map and site plan showing the proposed location. Photographs and/or artist's rendering optional.
- 2) Proposed use, including load requirements.

- 3) Specific plans regarding removal, hauling and rehabilitation (please refer to Eagle Bridge Relocation Factors, included in this packet, for the type of information to include in your proposal).
- 4) Proposed schedule for re-location and assembly. Include considerations for storage, if required.
- 5) Willingness and ability to agree to the attached preservation covenants.
- 6) Plans and availability of funds for future maintenance.

We recommend that engineers or contractors are consulted in the preparation of your proposal and that the design of the abutments be completed by a registered engineer (you need not submit the design with your proposal). We also recommend that a registered engineer conduct a hydraulics study to determine whether the structure is appropriate for the relocation site. In addition, you should be aware of the additional requirements necessary to address the containment of the lead-based paint on the bridge. These have been included on the attached estimate of relocation costs.

Proposals should include as much detail as possible to facilitate review and processing.

We would be glad to answer any questions you may have. Please contact John Simmer of Range Engineering at (719) 542-6481 for specifics on bridge removal and re-assembly. For questions regarding the historic preservation of the bridge, including the acceptance of preservation covenants, contact me at (303) 512-4258. The project manager for this project is Joe Garcia, (719) 546-5727.

CDOT Region II would need to receive proposals with enough advance time to adequately plan for the removal of the historic bridge. We request that potential proposals be received no later than September 15, 2001. The proposal should be sent to my attention at the address on this letterhead.

We look forward to hearing from you.

Sincerely,

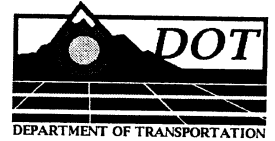
Lisa Schoch
Staff Historian

cc: Judy DeHaven, CDOT Region II
Darryl Schulz, Otero County
Joe Garcia, CDOT Region II
John Simmer, Range Engineering

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9011



August 6, 2001

Matt Nesland
PO Box 127
Cheraw, CO 81030-0127

RE: Adopt-A-Bridge information for Smith Arroyo Bridge

Dear Mr. Nesland:

As you know, we are in the process of finding someone interested in adopting the Smith Arroyo Bridge, which is located about 1.6 miles west of Manzanola in Otero County. As part of this effort, we advertise the bridge in a variety of publications, including the Colorado Historical Society's newsletter (*Colorado History Now*), the CDOT transportation newsletter, and local newspapers. I'd appreciate any assistance you can provide. At the very least, it would be great if you could print the ad and the photo I've enclosed.

Thanks for taking the time to review these materials. Enclosed you'll find the advertisement we drafted for the publications listed in the previous paragraph. I've also included a photograph of the bridge and the historic bridge inventory form, which describes the construction history and significance statement associated with the bridge. The bridge is eligible for the National Register of Historic Places under Criteria A and C.

If you need any other information, please contact me at (303) 512-4258.

Very truly yours,

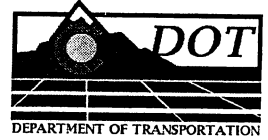
Lisa Schoch
Staff Historian

Programmatic 4(f)

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9011



August 21, 2001

Mr. William C. Jones
Division Administrator
FHWA, Colorado Division
555 Zang Street, Room 250
Lakewood, Colorado 80228

RE: Colorado Department of Transportation Project BRO C3600-001 (SA 12837)
Smith Arroyo Bridge Replacement, Otero County

Dear Mr. Jones:

The above-mentioned transportation project will replace the Smith Arroyo Bridge (structure OT-10-9.31.5-26), located west of Manzanola in Otero County, Colorado. This bridge was officially determined to be eligible to the National Register of Historic Places on May 2, 2001. This undertaking constitutes an adverse effect to this historic resource. The Memorandum of Agreement for this project was recently executed by your office. Enclosed for your review and concurrence is a Programmatic 4(f) Evaluation for Historic Bridges. A concurrence line is included for your convenience.

If you have questions or require additional information, please contact temporary CDOT historian Dianna Litvak at (303) 512-4958.

Very truly yours,

Rebecca D. Vickers

Rebecca D. Vickers
Environmental Program Manager

Enclosure

I Concur:

Edrie Lee Venson, Jr. 8-24-01
William C. Jones, Division Administrator Date

Department of Transportation
Federal Highway Administration
Programmatic Section 4(f) Evaluation and Approval
For FHWA Projects that Necessitate the Use of Historic Bridges

This report establishes the basis for a programmatic Section 4(f) approval that there is no feasible and prudent alternative to the use of the historic Smith Arroyo Bridge in Otero County, Colorado and the project includes all possible planning to minimize harm resulting from such use. This approval is made pursuant to Section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. 303, and Section 18(a) of the Federal-Aid Highway Act of 1968, 23 U.S.C. 138.

Proposed Action

The project involves replacing structure OT-10.9.31.5-26 over Smith Arroyo. This bridge is a steel, pin-connected Pratt through truss, constructed and designed for Otero County by the Pueblo Bridge Company in 1907.

The Smith Arroyo Bridge is only 15' 8" from rail to rail, and, with a Sufficiency Rating of only 18.3, is structurally deficient. Numerous vehicle/bridge collisions have damaged the superstructure members (Attachment A). Otero County has requested the replacement of the structure, to build a wider structure and increase the load capacity to accommodate large farm trucks that are currently unable to use the existing bridge. In addition, the existing rail does not meet current standards for vehicle collisions, and because there have been accidents on the bridge, this safety concern must also be addressed.

Applicability

The Programmatic Section 4(f) Evaluation for Historic Bridges applies to this project because the Smith Arroyo Bridge meets the following criteria:

1. The bridge is to be replaced with Federal funds.
2. The project will require the use of an historic bridge structure that was determined eligible for the National Register of Historic Places on May 2, 2001.
3. The bridge is not a National Historic Landmark.
4. The State Historic Preservation Officer (SHPO) and Federal Highway Administration (FHWA) have reached agreement pursuant to Section 106 of the National Historic Preservation Act, as amended. Please see Figure 2.

Alternatives Considered

Several alternatives to the Proposed Action have been investigated for this project to determine if there are any feasible or prudent alternatives that would not require the removal or destruction of the historic bridge. The positive and negative impacts of each alternative were also evaluated to determine if it would satisfy the needs for the project with fewer environmental consequences than the Proposed Action.

Alternatives considered for this project include: do nothing; rehabilitate the existing bridge, build a companion structure next to the old bridge; and build a new structure at a different location.

Do Nothing: This alternative would not correct the structural deficiencies, the safety concerns, and the need of the county to construct a wider bridge at this location. For these reasons, this option was not considered further.

Rehabilitation: To increase the load capacity of the bridge, virtually all of the super structural members, deteriorated beyond the point of reasonable repair, would have to be replaced. This is considered impractical and costly, and it would not correct the need for a wider bridge at this location. The bridge cannot be widened because it is a truss. For these reasons, this option was not considered further.

Build a Companion Structure: This alternative would involve building a companion structure next to the existing bridge and limiting traffic to one way on each bridge. This alternative would still necessitate increasing the load capacity of the existing bridge due to the substantial deterioration of the superstructure, which would involve replacing all of the members. In addition, a companion structure would have to be built on a greater skew, requiring additional roadway improvements. Engineers also considered building a new, wider bridge, and leaving the old bridge in place for pedestrian or bicycle traffic. However, due to the lack of pedestrian traffic in the area, it is not necessary to leave the bridge in place for this reason.

Build a new structure at a different location: This alternative would involve purchasing right-of-way to build a new structure at a different alignment. Otero County officials were not supportive of this option and due to lack of pedestrian traffic, it is not necessary to leave the bridge in place for this reason.

After reviewing all of the alternatives, CDOT has determined that this bridge must be replaced, which will result in an adverse effect.

Measures to Minimize Harm

Recordation

The Smith Arroyo Bridge in Otero County will be recorded prior to construction so that there will be a permanent record of its present appearance and history. Recordation shall consist of Level II documentation as determined in consultation with the SHPO and according to the standards established in Office of Archaeology and Historic Preservation Form #1595. All documentation will be accepted by the SHPO prior to the start of construction. Copies of the documentation also will be sent to a local archive designated by the SHPO.

Relocation (Adopt-a-Bridge)

CDOT will market the bridge for relocation with preference to a recipient willing to accept a preservation easement. The Memorandum of Agreement drafted for this project was executed by

the SHPO and FHWA in August 2001. Engineers have developed a cost estimate for repairing the superstructure, disassembly, and reassembly for potential reuse in another location and the bridge will be advertised for relocation in the CDOT Green Sheets, the Colorado Historical Society newsletter, and the *Pueblo Chieftain* during the month of August. Responders will be given a period of two to four weeks to prepare a relocation packet for Otero County, FHWA, and SHPO consideration.

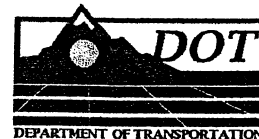
Coordination

The Colorado State Historic Preservation Officer (SHPO) has determined that this project will have an adverse effect on the historic Smith Arroyo Bridge. Otero County, the SHPO, and the Federal Highway Administration have agreed through the Section 106 process of the National Historic Preservation Act on a Memorandum of Agreement, which was signed by all parties involved (see attached Memorandum of Agreement). This agreement outlines measures to minimize harm that have been incorporated into the project.

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Environmental Programs, Project Development Branch
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259



October 18, 2001

Ms. Georgianna Contiguglia
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

SUBJECT: Project BRO C360-001, Level II Documentation of the Smith Arroyo Bridge (50T794)

Dear Ms. Contiguglia:

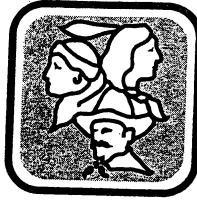
Enclosed for your review please find Level II Documentation prepared for the Smith Arroyo Bridge (50T794), including archival photographs and negatives. These materials were prepared to fulfill stipulations of the Memorandum of Agreement between SHPO, the Federal Transit Administration, and the Federal Highway Administration for this project. We are also forwarding copies of these materials to Otero County and the local library in that area.

Please contact CDOT Staff Historian Lisa Schoch at (303)512-4258 with any questions about these materials. A response from your office accepting these materials is necessary to confirm that we have fulfilled the stipulations of the MOA for this project. Thank you for your time and consideration.

Very truly yours,

for Rebecca D. Vickers
Environmental Programs Manager

cc: Joe Garcia, CDOT
Judy DeHaven, CDOT
Darryl Schulz, Otero County
File/CF/RF



COLORADO HISTORICAL SOCIETY

The Colorado History Museum 1300 Broadway Denver, Colorado 80203-2137

30 October 2001

Rebecca D. Vickers
Environmental Program Manager
Colorado Department of Transportation
Project Development Branch
4201 East Arkansas Ave.
Denver, CO 80222

RE: Level II Documentation, Smith Arroyo Bridge (5OT.794), Otero County

Dear Ms. Vickers:

Our office received a copy of the Level II documentation for this bridge on 19 October 2001. We have reviewed the submitted text and photographs, and found them to be acceptable by HABS/HAER Level II Documentation standards. This meets the requirements set forth in the Memorandum of Agreement between the SHPO and CDOT that was signed in July 2001.

If you have any questions, please feel free to contact Joseph Saldibar, Architectural Services Coordinator, at (303) 866-3741. We look forward to hearing from you.

Sincerely,

Mark Wolfe
For Georgianna Contiguglia
State Historic Preservation Officer, and
President, Colorado Historical Society

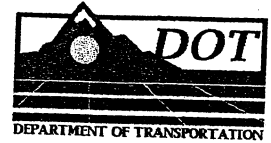
OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION

303-866-3392 * Fax 303-866-2711 * E-mail: oahp@chs.state.co.us * Internet: www.coloradohistory-oahp.org

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Environmental Programs
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259



November 14, 2001

Ms. Georgianna Contiguglia
State Historic Preservation Officer
Colorado Historical Society
1300 Broadway
Denver, CO 80203

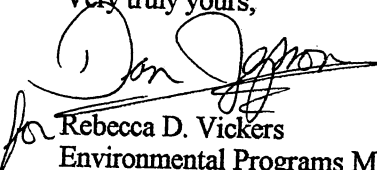
SUBJECT: Closeout for CDOT Project BRP C360-001 Smith Arroyo Bridge Replacement, Otero County

Dear Ms. Contiguglia:

The Colorado Department of Transportation, on behalf of the Federal Highway Administration, would like to inform you that all mitigation stipulations required by the 2001 Memorandum of Agreement (MOA) regarding the Smith Arroyo Bridge replacement have been completed.

In October 2001, your office accepted the Level II Documentation of the Smith Arroyo Bridge (5OT794). Copies of these materials were also provided to Otero County and the local library in Manzanola. Therefore, we consider all obligations under the MOA to be fulfilled. If you have any questions regarding this matter, please contact CDOT Staff Historian Lisa Schoch at (303)512-4258.

Very truly yours,


for Rebecca D. Vickers
Environmental Programs Manager

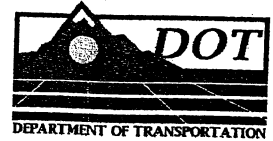
cc: Judy DeHaven, CDOT Region 2
Joe Garcia, CDOT Region 2
John Simmer, Range Engineering
Darryl Schulz, Otero County
F/RF/CF

F

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION

Environmental Program, Project Development Branch
4201 East Arkansas Avenue
Denver, Colorado 80222
(303) 757-9259



November 15, 2001

Kathy Bauserman
Manzanola Public/ School Library
301 Catalpa Street
P.O. Box 148
Manzanola, CO 81058

Dear Ms. Bauserman:

Enclosed please find the Level II documentation for the Smith Arroyo Bridge, which is located 1.6 miles west of Manzanola on County Road 10. This documentation was completed to fulfill the requirements of a Memorandum of Agreement (MOA) between the Colorado State Historic Preservation Officer, the Federal Transit Administration, and the Federal Highway Administration for this bridge replacement project in Otero County.

The Smith Arroyo Bridge was built in 1907 by the Pueblo Bridge Company. It was found eligible to the National Register of Historic Places for its role as a locally important crossing, and for its structural type – a pin-connected Pratt truss. There are less than ten of these types of bridges left in the state today.

Otero County requested the replacement of the Smith Arroyo Bridge in order to build a wider structure, and to increase the bridge's load capacity to accommodate farm traffic in the vicinity. In addition, the bridge did not meet several safety requirements. After considering a variety of construction alternatives, CDOT concluded that the only option was to replace the bridge.

As part of the mitigation process for this construction project, a new owner was sought through CDOT's Adopt-A-Bridge program, but no interested owners were located. In addition, this Level II recordation of the bridge was conducted in order to document the bridge's history and its technological features prior to demolition and replacement. Level II documentation includes an architectural and historical narrative, measured drawings, and medium format photography. As part of this MOA, CDOT agreed to provide a copy of this documentation to a local library or county archive, which is why we are sending these materials to your facility.

If you have any questions about these materials, please contact me at 303-512-4258.

Very truly yours,

Lisa Schoch
CDOT Staff Historian

Enclosures